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DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Part 774

[Docket No. 120426028-1028-01]

RIN: 0694-AF68

Feasibility of Enumerating “Specially Designed” Components

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Advanced notice of proposed rulemaking (ANPRM).

SUMMARY: As part of the President’s Export Control Reform (ECR) Initiative, this ANPRM requests comments on the feasibility of positively identifying “specially designed” “components” on the Commerce Control List (CCL) so as to decrease the use of the term, which appears extensively throughout the CCL, and thereby facilitate enhanced public compliance with the

Export Administration Regulations. Specifically, the Bureau of Industry and Security (BIS) is evaluating whether it is feasible to create exhaustive lists of the “specially designed” “components” referred to in certain Export Control Classification Numbers on the CCL that currently use “specially designed” catch-all paragraphs, and seeks public input to assist in this evaluation. If BIS ultimately determines that such lists might be beneficial, it intends to submit these findings to the appropriate multilateral export control regimes in the normal course of list proposal changes. The request for comments in this ANPRM is part of Commerce’s retrospective plan under EO 13563 completed in August 2011. Commerce’s full plan can be accessed at: <http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules>.

DATES: Comments must be received by BIS no later than [INSERT DATE 90 DAYS AFTER PUBLICATION].

ADDRESSES: Comments on this advanced notice of proposed rulemaking may be submitted to the Federal rulemaking portal (www.regulations.gov). The regulations.gov ID for this rule is: BIS-2012-0022. Written comments on this advanced notice of proposed rulemaking may also be submitted via e-mail to publiccomments@bis.doc.gov or on paper to Regulatory Policy Division, Bureau of Industry and Security, Room 2099B, U.S. Department of Commerce, 14th St. and Pennsylvania Ave., NW, Washington, DC 20230. Please refer to RIN 0694-AF68 in all comments and in the subject line of e-mail comments. All comments must be in writing. All comments (including any personal identifiable information) will be available for public

inspection and copying. Those wishing to comment anonymously may do so by submitting their comment via [regulations.gov](https://www.regulations.gov) and leaving the fields for identifying information blank.

FOR FURTHER INFORMATION CONTACT: Timothy Mooney, Regulatory Policy Division, Bureau of Industry and Security, Department of Commerce, Phone: (202) 482-2440, Fax: (202) 482-3355, E-mail: timothy.mooney@bis.doc.gov.

SUPPLEMENTARY INFORMATION

Background

This ANPRM requests comments on a longer-term project involving minimizing the use of the term “specially designed” on the current Commerce Control List (CCL) by specifically identifying “components.” Specifically listing “components,” with multilateral agreement where appropriate, would make the CCL a more positive list.

As part of the implementation of the Export Control Reform (ECR) Initiative, the Departments of Commerce and State published rules that proposed, as much as possible, a common definition of the term “specially designed.” A common definition of “specially designed” would protect and enhance U.S. national security interests because the term “specially designed” would be used in the “600 series” that would be created to control United States Munitions List (USML) items moved to the CCL. In addition, the term “specially designed” is used widely on the current

CCL.

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<http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules>.

Request for Comments on the Feasibility of Enumerating “Specially Designed”

“Components”

This ANPRM requests comments on the use of the term “specially designed” when applied to “components” outside of the “600 series” on the CCL. Specifically, the Bureau of Industry and Security is evaluating whether it is feasible to create exhaustive lists of the “specially designed” “components” in certain Export Control Classification Numbers on the CCL that currently use “specially designed” catch-all paragraphs. BIS does not believe a similar approach is needed for “parts” controlled on the CCL, but BIS also requests public comments regarding whether a similar approach should also be evaluated for “parts” controlled on the CCL.

Ultimately, any changes to multilaterally-controlled CCL entries would be made in cooperation with the multilateral export control regimes. This longer-term project may result eventually in a reduction in the use of the term “specially designed” outside of the “600 series” on the CCL if exhaustive lists of such “components” can be identified and specified. To assist the public, BIS has identified the set of ECCN entries that are the best candidates for taking this approach.

Most of the public comments and concerns about the July 15 proposed “specially designed” definition included in the rule, *Proposed Revisions to the Export Administration Regulations (EAR): Control of Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML)* (76 FR 41958) revolved around references in the application of the definition to existing CCL controls on “components” “specially designed” for a particular “end item” or purpose. Minimizing use of the term “specially designed” by specifically listing controlled “components” may address some of these concerns.

As described below, BIS parsed the CCL and removed all text that does not directly describe controls on “components” “specially designed” for an end item or purpose. To make the analysis easier and more relevant to the proposed definition of “specially designed,” BIS has not included in this ANPRM references to such controls in ECCNs that are controlled for only anti-terrorism reasons, because the number of circumstances where a licensing determination would be affected by whether a component is EAR99 or AT-only controlled is relatively small.

BIS has also not included in this ANPRM the ECCNs where a component is solely or primarily controlled for Missile Technology (MT) reasons or where the MT controls overlap other controls, such as National Security (NS) controls. Because the EAR has adopted the Missile Technology Control Regime’s definition of the term for such controls, BIS needs to further evaluate whether those ECCNs controlled for MT reasons would also be good candidates for specifically identifying “components.” In responding to this ANPRM, the public may also submit comments regarding whether they believe a similar approach would also be feasible for

items controlled for MT reasons, which BIS will factor into the evaluation for the scope of this review project going forward.

Unlike the USML, the CCL does not contain a broad catch-all control on essentially *all* “components” “specially designed” for any other item identified on the CCL. You must carefully read each heading and each subparagraph. Some catch-all controls are in the heading and apply by reference to all items described in the subparagraphs, such as in ECCN 3B001. Other headings merely refer to the fact that some of the subparagraphs contain catch-all controls “as follows,” such as ECCN 2B001 where only its subparagraph “f” contains controls on “specially designed” “components.” (The fact that a “specially designed” “component” control exists in some of an ECCN’s subparagraphs means, by negative implication, that such controls do not exist in the other subparagraphs in the same ECCN.) Some ECCN headings do not refer to catch-all controls but individual subparagraphs do, such as in ECCN 8A002.a. Some ECCNs refer to specific types of “components” “specially designed” for other items in that ECCN, such as 2B005, which limits its “component” controls to “specially designed automated handling, positioning, manipulation and control components.”

Finally, a few ECCNs, such as 3A292, contain a specific, positive list of the types of components that are within the scope of that ECCN’s controls on “specially designed” “components.”

Specifically, 3A292 contains a “note” stating that “[s]pecially designed components controlled by this item are the following, for analog oscilloscopes: 1. Plug-in units; 2. External amplifiers; 3. Pre-amplifiers; 4. Sampling devices; 5. Cathode ray tubes.” Thus, only those particularly identified components are controlled in that ECCN. Another example is ECCN 6A002. ECCN

6A002.a.2 controls “components” “specially designed” for “image intensifier tubes” described in ECCN 6A002.a.2.a. These components are described in three subparagraphs that specify the specially designed components under paragraph a.2.b, as follows: 1. Microchannel plates having a hole pitch (center-to-center spacing) of 12 μm or less; 2. GaAs or GaInAs photocathodes; and 3. Other III-V compound semiconductor photocathodes. To further refine what are considered specially designed components, a “note” specifies that “6A002.a.2.b.3 does not control compound semiconductor photocathodes with a maximum radiant sensitivity of 10 mA/W or less.”

Request for comments

BIS seeks the advice and suggestions of the public regarding whether identifying the specific types of “components” controlled by the ECCNs identified below would be of assistance to exporters. If so, BIS requests public comment regarding the “components” that should be identified in a positive list within the scope of the “specially designed” controls of the ECCNs identified below. In addition to the ECCNs identified below, the public may also submit public comments on other “specially designed” “component” references on the CCL where the public believes a similar approach of identifying the specific types of “components” would be feasible. If a list of such components could be created, the United States could consider developing proposals for the relevant multilateral export control regimes to control only those “components” within the scope of the relevant ECCNs. BIS does not believe a similar approach is needed for “parts” controlled on the CCL, but BIS also requests public comments regarding whether a similar approach should also be evaluated for “parts” controlled on the CCL.

BIS is particularly interested in comments from those with technical expertise related to or experience with classifying items identified below to provide advice on those items. The identified “components” should be those that have specific performance parameters or functions which make them particularly suitable for use in the controlled items. They should also include those “components” that are the essence of the controlled end item.

CCL entries where the U.S. Government is evaluating the feasibility of enumerating “specially designed” “components”

In the following list, BIS identifies ECCNs containing a control on a generic “component” “specially designed” for another item. The list does not include any references to any explanatory notes that may be germane to classifying an item against the ECCN. Thus, when preparing your suggested positive list of components for BIS to consider inserting into the ECCN, please read the whole ECCN for context.

For purposes of this ANPRM, BIS is using the definition of “component” from the July 15 proposed rule, as follows:

“Component.” This is an item that is useful only when used in conjunction with an “end item.” Components are also commonly referred to as assemblies. For purposes of this definition an assembly and a component are the same. There are two types of “components”: “Major components” and “minor components.” A “major component” includes any assembled

element which forms a portion of an “end item” without which the end item is inoperable. For example, for an automobile, components will include the engine, transmission, and battery. If you do not have all those items, the automobile will not function, or function as effectively. A “minor component” includes any assembled element of a “major component.” “Components” consist of “parts.”” References in the CCL to “components” include both “major components” and “minor components.”

List of ECCN “Specially Designed” Paragraphs

1. ECCN 1A004.a controls “components” “specially designed” for “gas masks, filter canisters and decontamination equipment therefor, designed or modified for defense against” (1) “biological agents ‘adapted for use in war;’” (2) “radioactive materials ‘adapted for use in war;’” (3) “chemical warfare (CW) agents;” or (4) specific “riot control agents” listed in ECCN 1A004.a.4.
2. ECCN 1A004.c controls “components” “specially designed” for “[d]etection systems, specially designed or modified for detection or identification of” (1) “[b]iological agents ‘adapted for use in war;’” (2) “[r]adioactive materials ‘adapted for use in war;’” or (3) “[c]hemical warfare (CW) agents.”
3. ECCN 1A006 controls “components” “specially designed” for “remotely operated vehicles” and “disruptors” “specially designed or modified for the disposal of improvised explosive devices.”

4. ECCN 1A008.b controls “components” “specially designed” for “linear shaped cutting charges” that have “an explosive load greater than 40 g/m” and “a width of 10 mm or more.”
5. ECCN 1B001.e controls “components” “specially designed” for “[e]quipment for producing preregs controlled by 1C010.e by the hot melt method.”
6. ECCN 1B001.f controls “components” “specially designed” for “[n]on-destructive inspection equipment specially designed for ‘composite’ materials” as described in ECCN 1B001.f.1 and f.2.
7. ECCN 1B003.c controls “components” “specially designed” for “[t]ools, dies, molds or fixtures, for ‘superplastic forming’ or ‘diffusion bonding’ titanium, aluminum or their alloys, specially designed for the manufacture of” “airframe or aerospace structures” or “aerospace engines.”
8. ECCN 2B003 controls “components” “specially designed” for “[n]umerically controlled’ or manual machine tools . . . specially designed for the shaving, finishing, grinding or honing of hardened ($R_c = 40$ or more) spur, helical and double-helical gears with a pitch diameter exceeding 1,250 mm and a face width of 15% of pitch diameter or larger finished to a quality of AGMA 14 or better (equivalent to ISO 1328 class 3).”

9. ECCN 3A001.c controls “components” “specially designed” for “[a]coustic wave devices” that have any of the characteristics described in 3A001.c.1.a., c.1.b., c.1.c, c.2 or c.3.
10. ECCN 3A003 controls “components” “specially designed” for “[s]pray cooling thermal management systems employing closed loop fluid handling and reconditioning equipment in a sealed enclosure where a dielectric fluid is sprayed onto electronic components using specially designed spray nozzles that are designed to maintain electronic components within their operating temperature range.”
11. ECCN 3A292.d controls “components” “specially designed” for “[d]igital oscilloscopes and transient recorders, using analog-to-digital conversion techniques, capable of storing transients by sequentially sampling single-shot inputs at successive intervals of less than 1 ns (greater than 1 giga-sample per second), digitizing to 8 bits or greater resolution and storing 256 or more samples.”
12. ECCN 3B001.a controls “components” “specially designed” for “equipment designed for epitaxial growth as follows:” (1) “[e]quipment capable of producing a layer of any material other than silicon with a thickness uniform to less than $\pm 2.5\%$ across a distance of 75 mm or more;” (2) “Metal Organic Chemical Vapor Deposition (MOCVD) reactors specially designed for compound semiconductor crystal growth by the chemical reaction between materials controlled by 3C003 or 3C004;” or (3) “[m]olecular beam epitaxial growth equipment using gas or solid sources.”

13. ECCN 3B001.b. controls “components” “specially designed” for “[e]quipment designed for ion implantation and having any of the following:” (1) “[a] beam energy (accelerating voltage) exceeding 1MeV;” (2) “[b]eing specially designed and optimized to operate at a beam energy (accelerating voltage) of less than 2 keV;” (3) “[d]irect write capability;” or (4) “beam energy of 65 keV or more and a beam current of 45 mA or more for high energy oxygen implant into a heated semiconductor material ‘substrate.’”

14. ECCN 3B001.c. controls “components” “specially designed” for “[a]nisotropic plasma dry etching equipment” having all the following: (1) “[d]esigned or optimized to produce critical dimensions of 65 nm or less;” and (2) “[w]ithin wafer non-uniformity equal to or less than 10% 3σ measured with an edge exclusion of 2 mm or less.”

15. ECCN 3B001.e controls “components” “specially designed” for “[a]utomatic loading multi-chamber central wafer handling systems” having (1) “[i]nterfaces for wafer input and output, to which more than two functionally different ‘semiconductor process tools’ controlled by 3B001.a, 3B001.b, 3B001.c or 3B001.d are designed to be connected;” and (2) “[d]esigned to form an integrated system in a vacuum environment for ‘sequential multiple wafer processing.’”

16. ECCN 3B001.f.1 controls “components” “specially designed” for “[l]ithography equipment” that “[a]lign[s] and expose[s] step and repeat (direct step on wafer) or step and scan (scanner) equipment for wafer processing using photo-optical or X-ray methods

and having” any of the following (a) “light source wavelength shorter than 245 nm;” or (b) “[c]apable of producing a pattern with a ‘Minimum Resolvable Feature size’ (MRF) of 95 nm or less.”

17. ECCN 3B001.f.2 controls “components” “specially designed” for “[i]mprint lithography equipment capable of production features of 95 nm or less” described in ECCN 3B001.f.2.

18. ECCN 3B001.f.3 controls “components” “specially designed” for “[e]quipment specially designed for mask making or semiconductor device processing using direct writing methods, having” all the characteristics described in ECCN 3B001.f.3.a. and any of the characteristics described in .b.

19. ECCN 3B002 controls “components” “specially designed” for “[t]est equipment specially designed for testing finished or unfinished semiconductor devices as follows . . .” (1) “[f]or testing S-parameters of transistor devices at frequencies exceeding 31.8 GHz;” or (2) “[f]or testing microwave integrated circuits controlled by 3A001.b.2.”

20. ECCN 4A003.c controls “[e]lectronic assemblies’ specially designed or modified to be capable of enhancing performance by aggregation of processors so that the ‘APP’ of the aggregation exceeds the limit in 4A003.b.”

21. ECCN 4A003.e controls “components” “specially designed” for “[e]quipment

performing analog-to-digital conversions exceeding the limits in 3A001.a.5.”

22. ECCN 4A003.g controls “components” “specially designed” for “[e]quipment specially designed for aggregating the performance of ‘digital computers’ by providing external interconnections which allow communications at unidirectional data rates exceeding 2.0 Gbyte/s per link.”

23. ECCN 4A004 controls “components” “specially designed” for (a) “[s]ystolic array computers;” (b) “[n]eural computers;” and (c) “[o]ptical computers.”

24. ECCN 5A001.b controls “components” “specially designed” for “telecommunication systems and equipment, having any of “characteristics, functions or features” described in ECCN 5A001.b.1, b.2, b.3, b.4, b.5, or b.6.

25. ECCN 5A001.e controls “components” “specially designed” for radio direction finding equipment operating at frequencies above 30 MHz and having (1) “‘instantaneous bandwidth’ of 10 MHz or more;” and (2) “capable of finding a Line Of Bearing (LOB) to non-cooperating radio transmitters with a signal duration of less than 1 ms.”

26. ECCN 5A001.f controls “components” “specially designed” for “[j]amming equipment specially designed or modified to intentionally and selectively interfere with, deny, inhibit, degrade or seduce mobile telecommunication services and” (1) “simulate the functions of Radio Access Network (RAN) equipment;” (2) “detect and exploit

specific characteristics of the mobile telecommunications protocol employed (e.g., GSM);” or (3) “exploit specific characteristics of the mobile telecommunications protocol employed (e.g., GSM).”

27. ECCN 5B001.a controls “components” “specially designed” for “equipment . . . specially designed for the ‘development’, ‘production’ or ‘use’ of equipment, functions or features, controlled by 5A001.”

28. ECCN 5B001.b controls “components” “specially designed” for “equipment . . . specially designed for the ‘development’ of any of the following telecommunication transmission or switching equipment” “employing a “laser” and (a) having “a transmission wavelength exceeding 1750 nm;” (b) “performing ‘optical amplification’ using Praseodymium-Doped Fluoride Fiber Amplifiers (PDFFA);” (c) “employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);” or (d) “employing analog techniques and having a bandwidth exceeding 2.5 GHz.”

29. ECCN 5B001.b also controls “components” “specially designed” for “equipment . . . specially designed for the ‘development’ of any of the following telecommunication transmission or switching equipment” (a) “radio equipment employing Quadrature-Amplitude-Modulation (QAM) techniques above level 256;” or (b) “equipment employing “common channel signaling” operating in non-associated mode of operation.”

30. ECCN 5A002.a controls “components” “specially designed” for “systems, equipment, application specific ‘electronic assemblies’, modules and integrated circuits for ‘information security’” if they were also “specially designed for ‘information security.’”

31. ECCN 6A001.a.1 controls “components” “specially designed” for “marine acoustic systems” that are within the scope of ECCN 6A001.a.1.a, a.1.b, a.1.c., a.1.d, or a.1.e.

32. ECCN 6A001.a.2 controls “components” “specially designed” for “passive systems” described in 6A001.a.2.a, a.2.b, a.2.c., a.2.d, a.2.e, or a.2.f.

33. ECCN 6A004.a.1 controls “components” “‘specially designed’ for ‘deformable mirrors’ having either continuous or multi-element surfaces . . . capable of dynamically repositioning portions of the surface of the mirror at rates exceeding 100 Hz.”

34. ECCN 6A005.e.2. controls “components” (optical mirrors, transmissive or partially transmissive optical or electro-optical components) “specially designed” for use with controlled lasers.

35. ECCN 6A203.a controls “components” “specially designed” for “mechanical rotating mirror cameras” that are (1) “framing cameras with recording rates greater than 225,000 frames per second;” or (2) “streak cameras with writing speeds greater than 0.5

mm per microsecond.”

36. ECCN 6A998.a controls “components” “specially designed” for “airborne radar equipment, n.e.s.”

37. ECCN 6A998.b controls “components” “specially designed for “space-qualified’ ‘laser’ radar or Light Detection and Ranging (LIDAR) equipment specially designed for surveying or for meteorological observation.”

38. ECCN 7A008 controls “components” “specially designed” for “underwater sonar navigation systems using Doppler velocity or correlation velocity logs integrated with a heading source and having a positioning accuracy of equal to or less (better) than 3% of distance traveled ‘Circular Error Probable’ (‘CEP’).”

39. ECCN 8A002.a controls “components” “specially designed” for “submersible vehicles and designed to operate at depths exceeding 1,000 m” that have (1) “pressure housings or pressure hulls with a maximum inside chamber diameter exceeding 1.5 m,” (2) “direct current propulsion motors or thrusters,” (3) “umbilical cables, and connectors therefor, using optical fiber and having synthetic strength members,” and (4) “components manufactured from material specified by ECCN 8C001.”

40. ECCN 9A002 controls “components” “specially designed” for “‘marine gas turbine engines’ with an ISO standard continuous power rating of 24,245 kW or more

and a specific fuel consumption not exceeding 0.219 kg/kWh in the power range from 35 to 100%.”

41. ECCN 9A003.a controls “components” and “assemblies” that “incorporat[e] any of the ‘technologies’ controlled by 9E003.a, 9E003.h or 9E003.i” and were “specially designed” for gas turbine engines “controlled by ECCN 9A001.”

42. ECCN 9A003.b controls “components” and “assemblies” that “incorporat[e] any of the ‘technologies’ controlled by 9E003.a, 9E003.h or 9E003.i” and “whose design or production origins are either countries in Country Group D:1 or unknown to the manufacturer.”

Comments should be submitted to BIS as described in the ADDRESSES section of this notice by [INSERT DATE 90 DAYS AFTER PUBLICATION].

DATED: June 6, 2012

Kevin J. Wolf

Assistant Secretary for Export Administration

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